

**AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application.

What is claimed is:

1. (Previously Presented) A method for producing gas from a subterranean formation comprising a coal seam, the method comprising:

drilling at least one substantially vertical well bore into the subterranean formation, which intersects the coal seam; and

fracturing the coal seam using a hydrajetting tool at a pressure less than a fracture pressure of the subterranean formation to produce at least one pair of opposed bi-wing fractures formed by erosion of the subterranean formation substantially along a plane of maximum stress.

2. (Original) The method of claim 1, further comprising the step of casing the at least one substantially vertical well bore.

3. (Original) The method of claim 2, further comprising the step of perforating the casing with the hydrajetting tool.

4. (Previously Presented) The method of claim 1, further comprising the step of removing water from the coal seam of the subterranean formation.

5. (Original) The method of claim 1, further comprising the step of inserting logging equipment into the at least one substantially vertical well bore.

6. (Original) The method of claim 1, wherein during the fracturing step the hydrajetting tool produces a plurality of pairs of opposed bi-wing fractures.

7. (Cancelled)

8. (Previously Presented) A method for producing gas from a subterranean formation comprising a coal seam, the method comprising:

drilling at least one substantially vertical well bore into the subterranean formation, which intersects the coal seam;

fracturing the coal seam along the substantially vertical well bore using a hydrajetting tool at a pressure less than a fracture pressure of the subterranean formation to produce at least one pair of opposed bi-wing fractures formed by erosion of the subterranean formation substantially along a plane of maximum stress;

drilling at least one substantially horizontal well bore into the coal seam; and

fracturing the coal seam along the substantially horizontal well bore using the hydrajetting tool at a pressure less than the fracture pressure of the subterranean formation to produce at least one pair of opposed bi-wing fractures formed by erosion of the subterranean formation.

9. (Previously Presented) The method of claim 8, further comprising the step of casing the at least one substantially vertical well bore and the at least one substantially horizontal well bore.

10. (Original) The method of claim 9, further comprising the step of perforating the casing with the hydrajetting tool.

11. (Previously Presented) The method of claim 8, further comprising the step of removing water from the coal seam of the subterranean formation.

12. (Original) The method of claim 8, further comprising the step of inserting logging equipment into the at least one substantially vertical well bore.

13. (Original) The method of claim 8, wherein during the fracturing steps the hydrajetting tool produces a plurality of pairs of opposed bi-wing fractures.

14. (Cancelled)

15. (Previously Presented) A method for producing gas from a subterranean formation comprising a coal seam, the method comprising:

drilling at least one substantially vertical well bore intersecting the coal seam;

logging the subterranean formation by inserting logging equipment into the at least one substantially vertical well bore;

casing the at least one substantially vertical well bore; and

fracturing the coal seam using a hydrajetting tool at a pressure less than a fracture pressure of the subterranean formation to produce at least one pair of opposed bi-wing fractures formed by erosion of the subterranean formation substantially along a plane of maximum stress.

16. (Original) The method of claim 15, further comprising the step of perforating the casing with the hydrajetting tool.

17. (Previously Presented) The method of claim 15, further comprising the step of removing water from the coal seam of the subterranean formation.

18. (Original) The method of claim 15, wherein during the fracturing step the hydrajetting tool produces a plurality of pairs of opposed bi-wing fractures.

19. (Cancelled)

20. (Previously Presented) A method for producing gas from a subterranean formation comprising a coal seam, the method comprising:

drilling at least one substantially vertical well bore intersecting the coal seam;  
logging the subterranean formation by inserting logging equipment into the at least one substantially vertical well bore;  
casing the at least one substantially vertical well bore;  
drilling a plurality of substantially horizontal well bores disposed substantially within the coal seam and exiting from the at least one substantially vertical well bore, wherein the plurality of substantially horizontal well bores is spaced to maximize interference between the substantially horizontal well bores;  
casing the plurality of substantially horizontal well bores;  
fracturing the coal seam along the substantially vertical well bore using a hydrazetting tool at a pressure less than a fracture pressure of the subterranean formation to produce at least one pair of opposed bi-wing fractures formed by erosion of the subterranean formation substantially along a plane of maximum stress; and  
fracturing the coal seam along the plurality of substantially horizontal well bores using the hydrazetting tool at a pressure less than the fracture pressure of the subterranean formation to produce a plurality of fractures formed by erosion of the subterranean formation, wherein the plurality of fractures is spaced to maximize interference between fractures and wherein the plurality of fractures enhances the production of gas from the coal seam of the subterranean formation.

21. (Original) The method of claim 20, further comprising the step of perforating the casing with the hydrazetting tool.

22. (Previously Presented) The method of claim 20, further comprising the step of removing water from the coal seam of the subterranean formation.

23. (Original) The method of claim 20, wherein during the fracturing steps the hydrazetting tool produces a plurality of pairs of opposed bi-wing fractures.

24-28. (Cancelled)

29. (Previously Presented) The method of claim 1 comprising performing an additional fracturing step using the hydrazetting tool subsequent to the step of fracturing the coal seam using the hydrazetting tool.

30. (Previously Presented) The method of claim 8 comprising performing an additional fracturing step using the hydrajetting tool subsequent to the step of fracturing the coal seam along the substantially horizontal well bore.

31. (Previously Presented) The method of claim 15 comprising performing an additional fracturing step using the hydrajetting tool subsequent to the step of fracturing the coal seam using the hydrajetting tool.

32. (Previously Presented) The method of claim 20 comprising performing an additional fracturing step using the hydrajetting tool subsequent to the step of fracturing the coal seam along the plurality of substantially horizontal well bores.

33. (Previously Presented) The method of claim 1 wherein the step of fracturing the coal seam using a hydrajetting tool comprises discharging from the hydrajetting tool a fluid comprising proppant particulates.

34. (Previously Presented) The method of claim 8 wherein the step of fracturing the coal seam along the substantially vertical well bore using a hydrajetting tool comprises discharging from the hydrajetting tool a fluid comprising proppant particulates.

35. (Previously Presented) The method of claim 15 wherein the step of fracturing the coal seam using a hydrajetting tool comprises discharging from the hydrajetting tool a fluid comprising proppant particulates.

36. (Previously Presented) The method of claim 20 wherein the step of fracturing the coal seam along the substantially vertical well bore using a hydrajetting tool comprises discharging from the hydrajetting tool a fluid comprising proppant particulates.